

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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| In re Application of: |) | |
| |) | |
| Stephen Paul Brennan et al. |) | Group Art Unit: 2642 |
| |) | |
| Serial No.: 09/654,444 |) | Examiner: Agdeppa, Hector A |
| |) | |
| Filed: September 1, 2000 |) | |
| |) | |
| For: METHOD AND APPARATUS FOR |) | |
| DETERMINING THE CARRIER USED |) | |
| FOR AN AIN CALL |) | |

APPEAL BRIEF

Commissioner for Patents
Washington, D.C. 20231

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Sir:

This Appeal Brief is submitted in response to the final rejection, mailed July 30, 2002, and in support of the Notice of Appeal, filed November 26, 2002.

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Verizon Corporate Services Group Inc.

II. RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-24 are pending in this application. All of the pending claims were finally rejected in the Final Office Action of July 30, 2002 and are the subject of this appeal. A copy of the pending claims is attached in the Appendix.

IV. STATUS OF AMENDMENTS

No amendments were filed after the Final Office Action of July 30, 2002.

V. SUMMARY OF THE INVENTION

The present invention, as recited in the various claims, provides methods, systems, and computer program products for selecting a carrier type for routing a call for Advanced Intelligent Network (AIN) based customers of a Local Exchange Carrier (LEC). As discussed in the "Background of the Invention" section of the application, legislative and regulatory changes have made it possible that more than one carrier can provide service to a telecommunications market. There is thus a need for AIN service logic that can determine whether a call should be routed by a LEC, an IntraLATA carrier, or an InterLATA carrier.

In view of the problems discussed in the "Background of the Invention" section, the present invention provides for the selection of a carrier type in AIN networks. Claim 1, for example, is directed to a method that includes determining whether a called party is inside a local calling scope of a called party. (Spec., page 8, line 23 through page 10, line 27; Figs. 1 and 2, steps 155 - 220). Responsive to this determination, a first carrier type is selected. (Figs. 1 and 2, step 220). As shown in Fig. 2, this first carrier type

may be a local exchange carrier (LEC). Further, the invention includes a step of, responsive to a determination that a called party is outside the local calling scope of the calling party, selecting a second carrier as a carrier type if an originating LATA of the calling party and a terminating LATA of the called party are the same. (Spec., page 12, lines 7-15; Fig. 2, steps 270 and 275). As shown in Fig. 2, this second carrier may be an InterLATA carrier (step 275). The invention further includes selecting a third carrier as the carrier type if the originating LATA and the terminating LATA are different. (Spec., page 12, lines 7-15; Fig. 2, steps 270 and 280). This third carrier may be an IntraLATA carrier (step 280).

VI. ISSUES

Whether pending claims 1-24 are obvious under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,205,214 to Culli et al. ("Culli").

VII. GROUPING OF CLAIMS

Appellants are satisfied to let claims 1, 9, 10, 12, and 20-22 stand or fall together. Claim 1 will be used as representative of this group. Claims 2-6, 13-17, and 23 stand or fall together as a separate group. Claim 2 will be used as a representative claim from this group. Claims 11 and 24 stand or fall together as a separate group. Claims 7 and 18 stand or fall together as a separate group. Claims 8 and 19 stand or fall together as a separate group. The patentability of each of these different groups of claims is argued separately in the Argument section below.

VIII. ARGUMENT**A. Culli Fails to Disclose or Suggest a Number of The Features Recited In Claim 1, And Accordingly, The Rejection Under 35 U.S.C. §103(a) Based On Culli Should Be Reversed.**

Culli is directed to a system for selectively routing traffic in a telecommunications network according to a local service provider's preferences. (Culli, col. 5, lines 17-20).

Culli is directed to non-LEC (local exchange carrier) usage. That is, Culli discloses supporting local call routing for unbundled network elements [i.e., Local Service Providers (LSPs) and/or Competitive Local Exchange Carriers (CLECs)].

It is a cardinal tenet of patent law that the prior art reference (or references when combined) must teach or suggest all the claim limitations. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Appellants submit, however, that Culli does not disclose or suggest each of the features recited in claim 1. Specifically, claim 1 recites a method comprising the following steps in the order given:

determining whether a called party is inside a local calling scope of a calling party;

...

responsive to a determination that said called party is outside said local calling scope of said calling party, selecting a second carrier as said carrier type if an originating LATA of said calling party and a terminating LATA of said called party are the same and selecting a third carrier as said carrier type if said originating LATA and said terminating LATA are different.

Appellants submit that Culli fails to disclose or suggest these features of claim 1.

Although Culli may disclose determining whether a call is a local call, nowhere does Culli disclose or suggest the second portion of the above quote of claim 1, which is performed responsive to a determination that the called party is outside the local calling scope of the calling party. That is, Culli does not, after

determining whether a call is local, select a second carrier as the carrier type if an originating LATA of the calling party and a terminating LATA of the called party are the same and selecting a third carrier as the carrier type if the originating LATA and the terminating LATA are different, as recited in claim 1.

As mentioned, Culli does appear to disclose determining whether a call is a local call. In column 2, for example, Culli states:

According to a preferred embodiment, the local routing system also includes a filter which analyzes the dialed number and determines whether the call is local. The filter determines whether the call is local by first comparing an originating local access and transport area (LATA) with a destination LATA, and if the LATAs are identical, the filter checks whether the destination NPANXX is within the local calling scope of the originator.

(Culli, col. 2, lines 43-50). Neither this section of Culli, nor any other section of Culli, however, discloses selecting a second or third carrier based on the originating and terminating LATAs, as recited in claim 1. Instead, Culli uses the originating and terminating LATAs to determine whether a call is a local call. Claim 1, in contrast, first determines whether a call is a local call and then, responsive to this determination, selects the second carrier or third carrier based on the originating and terminating LATAs.

In a sense, Culli's disclosure is opposite that of the invention recited in claim 1, as Culli first compares originating and destination LATAs, and then, if the LATAs are identical, checks whether a destination NPANXX is within a local calling scope. Appellants submit that this actually teaches away from Appellants' claim 1, which recites first determining whether a called party is inside a local calling scope of a calling party and then, responsive to the determination,

comparing originating and terminating LATAs. Thus, not only is the reason for comparing originating and terminating LATAs different, but the order of execution between Culli's disclosure and Appellants' claim 1 is reversed.

In the Advisory Action of October 22, 2002, the Examiner briefly addressed the argument made in the previous paragraph relating to order of execution and stated, that: "While the Culli et al. reference may teach a different order of operation than that claimed in the present invention, there is no criticality of the claimed order either in the claims or in the specification, simply that Applicant 'chooses' to check the local calling scope before comparing LATAs or NPA-NXXs." Appellants respectfully disagree with the Examiner. Claim 1 specifically recites steps that are performed responsive to previous steps recited in claim 1. The Examiner is effectively ignoring these terms in performing his analysis. It is a basic principle of patent law that all the elements recited in a claim are to be considered, *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (Fed. Cir 1986), and that words of a claim must be given their ordinary "plain meaning." *In re Zletz*, 893 F.2d 319, 321, 13 USPQ 1230, 1322 (Fed. Cir 1989). The Examiner has failed to do this.

Moreover, Appellants submit that, contrary to the Examiner's assertions, reversing the order of the steps may produce different end results. Culli only checks whether the destination NPANXX is within the local calling scope of the originator when the LATAs are identical. Thus, Culli discloses checking the local calling scope conditioned upon the LATAs being identical. The initial determining step in Appellants' claim 1, in contrast, is performed regardless of whether the LATAs are identical.

At page four of the Final Office Action, the Examiner further argues:

Furthermore, in Col. 19, lines 5-20, Culli et al. teach an operation flow of the invention wherein the system is able to determine that a call is an intra-LATA call **due to the identical NPAs**. From this, it could even be argued that Culli et al. does in fact teach **also**, the comparing of NPANXX numbers numbers before comparing LATAs, in which case, Culli et al. reads directly on the instant invention.

(Final Office Action of July 30, 2002, page 4, emphasis in original). Column 19, lines 5-20 of Culli merely appears to disclose that a call is determined to be an intra-LATA call due to identical NPAs. Claim 1, in contrast, recites selecting a second carrier if an originating LATA of the calling party and a terminating LATA are the same. Appellants submit that this is not equivalent to Culli's disclosure of determining that a call is an intra-LATA call due to identical NPAs.

For at least these reasons, Appellants submit that Culli does not disclose or suggest each element of claim 1. Accordingly, the rejection of claim 1 based on Culli is improper and should be reversed. Claims 9, 10, 12, and 20- 22 are grouped with claim 1, and thus, the rejection of these claims should also be reversed.

B. Claims 2-6, 13-17, and 23 Are Patentable Under 35 U.S.C. § 103(a) Over Culli.

Representative claim 2 further defines the method of claim 1, and recites that determining whether a called party is inside the local calling scope of the calling party comprises:

determining an originating rate center and a terminating rate center by performing a lookup in a LATA table using a calling party number and a called party number; and
searching for said terminating rate center in an originating rate center table.

Appellants submit that Culli completely fails to disclose or suggest these features of the invention. Culli, in fact, does not even disclose determining an originating rate center or a terminating rate center, much less determining the rate centers by performing a lookup in a LATA table using a calling party number and a called party number and then searching for the terminating rate center in an originating rate center table, as is recited in claim 2. Thus, Appellants submit that Culli does not disclose or suggest these features recited in claim 2.

In the Final Office Action the Examiner argues that originating and terminating rate centers are inherent in Culli. (Final Office Action of July 30, 2002, page 2). Appellants disagree with this interpretation of Culli. Originating and terminating rate centers are not required, and are thus not inherent, in a telecommunications network. A telecommunications network could be built having, for example, a single global rate center or no rate center. In any event, for the sake of argument, even if originating and terminating rate centers were inherent to Culli, Culli still does not disclose or suggest accessing rate centers and rate center tables as recited in claim 2 to determine whether a called party is inside the local calling scope of the calling party.

Accordingly, for at least these reasons, Appellants submit that the rejection of claim 2 is improper and should be reversed.

C. Claims 7 and 18 Are Patentable Under 35 U.S.C. § 103(a) Over Culli.

Representative claim 7 further defines the method of claim 1, and recites that the determination that the called party is inside the local calling scope of the calling party is

made when the terminating rate center is found in an originating rate center table for the originating rate center. As previously discussed with respect to claim 2, Culli does not disclose a terminating rate center or an originating rate center table. Accordingly, Culli could not be fairly construed to disclose or suggest the determination made in claim 7, which involves a lookup of a terminating rate center in an originating rate center table.

D. Claims 8 and 19 Are Patentable Under 35 U.S.C. § 103(a) Over Culli.

Representative claim 8 further defines the method of claim 1, and recites:

wherein said determination that said called party is inside said local calling scope of said calling party is made when said terminating rate center is found in an originating rate center table for said originating rate center and an extended dial plan requirement indicated in said originating rate center table for said terminating rate center is satisfied.

As discussed above regarding claims 2 and 7, Culli does not disclose or suggest a terminating rate center, an originating rate center table, or an originating rate center. Thus, Culli could not possibly disclose or suggest these features recited in claim 8, which additionally recites that the determination that the called party is inside the local calling scope of the calling party includes determining that an extended dial plan requirement indicated in the originating rate center table for the terminating rate center is satisfied.

E. Independent Claims 11 and 24 Are Patentable Under 35 U.S.C. § 103(a) Over Culli.

Independent claim 11 is directed to a method for determining a carrier type for routing a call. The method comprises a number of steps in the order given. In particular, these steps include:

- comparing an originating NPA-NXX to a terminating NPA-NXX; responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are the same, selecting a local exchange carrier as said carrier type;
- responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are different, determining an originating rate center for a calling party and a terminating rate center for a called party; responsive to a determination that said terminating rate center and said originating rate center are the same, selecting a local exchange carrier as said carrier type;
- responsive to a determination that said terminating rate center and said originating rate center are different, searching an originating rate center table for said terminating rate center;
- responsive to finding said terminating rate center in said originating rate center table, determining whether said terminating rate center requires an extended dial plan to make a local call from said originating rate center to said terminating rate center;
- responsive to a determination that said extended dial plan is required, selecting said local exchange carrier as said carrier type if either said calling party or said called party subscribe to said dial plan, and if neither said calling party nor said called party subscribe to said dial plan, selecting an IntraLATA carrier as said carrier type if an originating LATA is the same as a terminating LATA and selecting an InterLATA carrier if said originating LATA is different from said terminating LATA;
- responsive to a determination that said extended dial plan is not required, selecting a local exchange carrier as said carrier type; and
- responsive to not finding said terminating rate center in said originating rate center table, selecting said IntraLATA carrier as said carrier type if said originating LATA is the same as said terminating LATA and selecting said InterLATA carrier as said carrier type if said originating LATA is different from said terminating LATA.

Applicants submit that Culli fails to disclose or suggest each of these steps. Culli, for instance, does not mention the use of an extended dial plan,

much less the above-listed steps in claim 11 that are responsive to a determination that an extended dial plan is required. As previously mentioned, Culli also fails to disclose an originating rate center and a terminating rate center, and thus could not be fairly construed disclose or suggest the above-cited steps that rely on these rate centers.

The Examiner did not explicitly address the features of claim 11 in the Office Actions and apparently considers the features of claim 11 to be equivalent to those in independent claim 1. Claim 11, however, as discussed above, recites features that are not included in claim 1. Accordingly, Appellants are unsure which features in Culli that the Examiner contends correspond to claim 11. In any event, as discussed above, Appellants have thoroughly reviewed Culli, and submit that Culli clearly fails to disclose or suggest each of these steps, much less disclose or suggest each of the steps recited in the order given in claim 11.

For at least these reasons, Appellants submit that Culli does not disclose or suggest each element of claim 11. Accordingly, the rejection of claim 11 based on Culli is improper and should be reversed. Claim 24 is grouped with claim 11, and thus, the rejection of this claim should also be reversed.

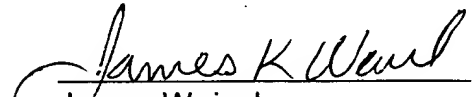
IX. CONCLUSION

In view of the foregoing arguments, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejection of claims 1-24 under 35 U.S.C. § 103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the

filing of this paper, including extension of time fees, to Deposit Account No. 07-2339
and please credit any excess fees to such deposit account.

Respectfully submitted,


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APPENDIX

1. A method for selecting a carrier type for routing a call for AIN-based customers of the LEC, said method comprising the following steps in the order given:

determining whether a called party is inside a local calling scope of a calling party;

responsive to a determination that said called party is inside said local calling scope of said calling party, selecting a first carrier as said carrier type; and,

responsive to a determination that said called party is outside said local calling scope of said calling party, selecting a second carrier as said carrier type if an originating LATA of said calling party and a terminating LATA of said called party are the same and selecting a third carrier as said carrier type if said originating LATA and said terminating LATA are different.

2. The method of claim 1 wherein said step of determining whether a called party is inside said local calling scope of a calling party comprises:

determining an originating rate center and a terminating rate center by performing a lookup in a LATA table using a calling party number and a called party number; and

searching for said terminating rate center in an originating rate center table.

3. The method of claim 2 wherein if said terminating rate center is found in said originating rate center table and an extended dial plan entry in said table is null for

said terminating rate center, said called party is inside said local calling scope.

4. The method of claim 3 wherein if said terminating rate center is found in said originating rate center table and said extended dial plan entry in said table indicates that an extended dial plan is required for said terminating rate center, said called party is inside said local calling scope only if either said called party or said calling party subscribes to said extended dial plan.

5. The method of claim 2 wherein said lookup is performed using a key chosen from the group consisting of a NPA-NXX-X combination and a NPA-NXX combination.

6. The method of claim 2 wherein said lookup of said originating rate center is performed using said calling party number and wherein said lookup of said terminating rate center is performed using said called party number.

7. The method of claim 2 wherein said determination that said called party is inside said local scope of said calling party is made when said terminating rate center is found in an originating rate center table for said originating rate center.

8. The method of claim 1 wherein said determination that said called party is inside said local scope of said calling party is made when said terminating rate center is found in an originating rate center table for said originating rate center and an extended

dial plan requirement indicated in said originating rate center table for said terminating rate center is satisfied.

9. The method of claim 1 wherein said originating LATA and said terminating LATA are the same when a lookup in a LATA table using a calling party number and a called party number indicates that an originating LATA key and a terminating LATA key are equal.

10. The method of claim 1 further comprising:
comparing an originating NPA-NXX to a terminating NPA-NXX prior to determining whether a called party is inside a local calling scope of a calling party; and
responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are the same, selecting a local exchange carrier as said carrier type.

11. A method for determining a carrier type for routing a call for AIN-based customers of the LEC, said method comprising the following steps in the order given:
comparing an originating NPA-NXX to a terminating NPA-NXX;
responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are the same, selecting a local exchange carrier as said carrier type;
responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are different, determining an originating rate center for a calling

party and a terminating rate center for a called party;

responsive to a determination that said terminating rate center and said originating rate center are the same, selecting a local exchange carrier as said carrier type;

responsive to a determination that said terminating rate center and said originating rate center are different, searching an originating rate center table for said terminating rate center;

responsive to finding said terminating rate center in said originating rate center table, determining whether said terminating rate center requires an extended dial plan to make a local call from said originating rate center to said terminating rate center;

responsive to a determination that said extended dial plan is required, selecting said local exchange carrier as said carrier type if either said calling party or said called party subscribe to said dial plan, and if neither said calling party nor said called party subscribe to said dial plan, selecting an IntraLATA carrier as said carrier type if an originating LATA is the same as a terminating LATA and selecting an InterLATA carrier if said originating LATA is different from said terminating LATA;

responsive to a determination that said extended dial plan is not required, selecting a local exchange carrier as said carrier type; and

responsive to not finding said terminating rate center in said originating rate center table, selecting said IntraLATA carrier as said carrier type if said originating LATA is the same as said terminating LATA and selecting said InterLATA carrier as said carrier type if said originating LATA is different from said terminating LATA.

12. A data processing system for selecting a carrier type for routing a call for AIN-based customers of the LEC comprising:

means for determining whether a called party is inside a local calling scope of a calling party;

means, responsive to operation of said determining means providing a determination that said called party is outside said local calling scope of said calling party, for selecting a second carrier as said carrier type if an originating LATA of said calling party and a terminating LATA of said called party are the same and selecting a third carrier as said carrier type if said originating LATA and said terminating LATA are different.

13. The data processing system of claim 12 wherein said means for determining whether a called party is inside said local calling scope of a calling party comprises:

means for determining an originating rate center and a terminating rate center by performing a lookup in a LATA table using a calling party number and a called party number; and

means for searching for said terminating rate center in an originating rate center table.

14. The data processing system of claim 13 wherein if said terminating rate center is found in said originating rate center table and an extended dial plan entry in said table is null for said terminating rate center, said called party is inside said local

calling scope.

15. The data processing system of claim 14 wherein if said terminating rate center is found in said originating rate center table and said extended dial plan entry in said table indicates that an extended dial plan is required for said terminating rate center, said called party is inside said local calling scope only if either said called party or said calling party subscribes to said extended dial plan.

16. The data processing system of claim 13 wherein said lookup is performed using a key chosen from the group consisting of a NPA-NXX-X combination and a NPA-NXX combination.

17. The data processing system of claim 13 wherein said lookup of said originating rate center is performed using said calling party number and wherein said lookup of said terminating rate center is performed using said called party number.

18. The data processing system of claim 12 wherein said determination that said called party is inside said local calling scope of said calling party is made when said terminating rate center is found in an originating rate center table for said originating rate center.

19. The data processing system of claim 12 wherein said determination that said called party is inside said local calling scope of said calling party is made when

said terminating rate center is found in an originating rate center table for said originating rate center and an extended dial plan requirement indicated in said originating rate center table for said terminating rate center is satisfied.

20. The data processing system of claim 12 wherein said originating LATA and said terminating LATA are the same when a lookup in a LATA table using a calling party number and a called party number indicates that an originating LATA key and a terminating LATA key are equal.

21. The data processing system of claim 12 further comprising:
means for comparing an originating NPA-NXX to a terminating NPA-NXX prior to determining whether a called party is inside a local calling scope of a calling party; and
means, responsive to a determination that said originating NPA-NXX and said terminating NPA-NXX are the same, for selecting a local exchange carrier as said carrier type.

22. A computer program product in a computer readable medium for selecting a carrier type for routing a call for AIN-based customers of the LEC, said computer program product comprising:

first instructions for determining whether a called party is inside a local calling scope of a calling party;

second instructions, responsive to said first instructions providing a

- determination that said called party is inside said local calling scope of said calling

party, for selecting a first carrier as said carrier type; and

third instructions, responsive to said first instructions providing a determination that said called party is outside said local calling scope of said calling party, for selecting a second carrier as said carrier type if an originating LATA of said calling party and a terminating LATA of said called party are the same and selecting a third carrier as said carrier type if said originating LATA and said terminating LATA are different.

23. The computer program product of claim 22 wherein said first instructions comprises:

instructions for determining an originating rate center and a terminating rate center by performing a lookup in a LATA table using a calling party number and a called party number; and

instructions for searching for said terminating rate center in an originating rate center table.

24. A computer program product in a computer readable medium for determining a carrier type for routing a call for AIN-based customers of the LEC, said computer program product comprising:

first instructions for comparing an originating NPA-NXX to a terminating NPA-NXX;

second instructions, responsive to said first instructions providing a determination that said originating NPA-NXX and said terminating NPA-NXX are the same, for selecting a local exchange carrier as said carrier type;

third instructions, responsive to first instructions providing a determination that said originating NPA-NXX and said terminating NPA-NXX are different, for determining an originating rate center for a calling party and a terminating rate center for a called party;

fourth instructions, responsive to a determination that said terminating rate center and said originating rate center are the same, for selecting a local exchange carrier as said carrier type;

fifth instructions, responsive to a determination that said terminating rate center and said originating rate center are different, for searching an originating rate center table for said terminating rate center;

sixth instructions, responsive to finding said terminating rate center in said originating rate center table, for determining whether said terminating rate center requires an extended dial plan to make a local call from said originating rate center to said terminating rate center;

seventh instructions, responsive to a determination that said extended dial plan is required, for selecting said local exchange carrier as said carrier type if either said calling party or said called party subscribe to said dial plan, and if neither said calling party nor said called party subscribe to said dial plan, selecting an IntraLATA carrier as said carrier type if an originating LATA is the same as a terminating LATA and selecting an InterLATA carrier if said originating LATA is different from said terminating LATA;

eighth instructions, responsive to a determination that said extended dial plan is not required, for selecting a local exchange carrier as said carrier type; and

ninth instructions, responsive to not finding said terminating rate center in said

originating rate center table, for selecting said IntraLATA carrier as said carrier type if said originating LATA is the same as said terminating LATA and selecting said InterLATA carrier as said carrier type if said originating LATA is different from said terminating LATA.